

Xyris caroliniana, forma *phyllolepis* is presumably a vegetatively reproducing form, quite comparable with the forms in *Juncus pelocarpus* Mey., *Cyperus dentatus* Torr. and other species in which vegetative or leafy shoots replace the flowers.

SALIX TRISTIS Ait., forma **curtifolia**, f. nov., foliis anguste cuneato-obovatis 1.3–3 cm. longis 0.6–1.7 cm. latis, apice rotundatis subtus griseo-tomentosis, supra opacis subgriseis.—MASSACHUSETTS: dry open sand, Sandwich, October 23, 1922, *Fernald* (TYPE in Gray Herb.).

An extraordinary departure, in its short round-tipped cuneate leaves, from ordinary *Salix tristis*, which has linear-oblongate elongate and acute or subacute foliage. Another striking departure from conventional *S. tristis* (with foliage opaque and grayish-pubescent above) is

S. TRISTIS Ait., forma **festiva**, f. nov., foliis lineari-oblongatis subtus griseo-tomentosis supra laete viridibus glabris lucidis.—MASSACHUSETTS: along cartroads in dry oak and pine barrens, Bourne, August 21, 1919, *Fernald & Long*, no. 18,315 (TYPE in Gray Herb.).

APIOS AMERICANA Med., forma **cleistogama**, f. nov., corollis minutis clavatis e calyce vix exsertis clausis.—MASSACHUSETTS: along old road in woods and thickets bordering salt marsh along Herring River, West Harwich, August 16, 1918, *Fernald & Long*, no. 17,002 (TYPE in Gray Herb.).

Apios americana, f. *cleistogama* formed a considerable tangle, uniform in having greenish, minute unexpanding corollas which scarcely protrude from the calyx. Neighboring colonies had the normal expanded flowers.—M. L. FERNALD, Gray Herbarium.

NOTES ON ROCKY MOUNTAIN PLANTS.—SALIX PSEUDOLAPPONUM v. Seemen, var. **subincurva**, var. nov., ramis tenuioribus; folia angustiora, oblongo-oblongata, 11 x 45 mm., ad basin longe attenuata.—COLORADO: Above Lawn Lake, Rocky Mountain National Park, alt. 11,100 ft., August 5, 1931. *L. Kelso* 3503 (TYPE, in my collection). UTAH: Bullion Canyon, in and near the Gorge, July 27, 1905, *Rydberg* and *Carlton* 7250.

Branches more slender; leaves narrower, oblong-lanceolate, 11 x 45 mm., subincurved, long-attenuate at the base; otherwise similar to the typical form of the species.

SALIX BRACHYCARPA Nutt. var. **alticola**, var. nov., planta 12–17 dm. alta, ramis tenuioribus; folia angustiora, anguste oblongo-oblongata, 6 x 24 mm., subincurva; ad basin longe attenuata; amentis laxis, oblongis, 2–2.5 cm. longis.—COLORADO: Near Fairplay,

alt. 10,500 ft., August 10, 1932. *L. Kelso* 3459 (TYPE, in my collection).

Plant 12–17 dm. high; branches more slender; leaf narrower, narrowly oblong-ob lanceolate, 6 x 24 mm., subincurved, long-attenuate at the base; aments lax, oblong, 2–2.5 cm. long; otherwise similar to the typical form of the species.

SALIX LUTEA Nutt., var. **desolata**, var. nov., ramis gemmis et foliis juvenilibus dense albescenti-villosis.—ARIZONA: Indian Gardens, alt. 3,800 ft., August 25, 1913. *E. A. Goldman* 2237 (TYPE, in U. S. Nat. Herb.).

Young branches, buds, and leaves densely white-villous; otherwise similar to *S. lutea* var. *ligulifolia* Ball.

× *SALIX Solheimii*, hybr. nov. (*S. nivalis* × *S. Dodgeana*), *S. nivalis* similis sed ramis tenuioribus; folia adulta sicca per secundum annum vel plures annos persistentia; folia tenuiora, ovata vel elliptica, numquam subrotunda, 6–12 mm. longa; pagina superior non inciso-reticulata, nervi primarii (sed numquam secundarii) satis incisi; subtus numquam albescentia, numquam elevato-reticulata; foliis juvenilibus ad apicem pubescentibus; amenta sessilia, floribus 2–3.

S. Dodgeanae similis sed nervi primarii paginae superioris foliorum plus incisi, 6–12 mm. longa; ovaria pubescentia.—MONTANA: Yellowstone Natl. Park, Electric Peak, alt. 10,000 ft., July 27, 1931. *L. Kelso* 3,313½ (TYPE, in my collection).

Similar to *S. nivalis* but branches thinner; dead leaves persistent for two or more years; leaf thinner, ovate or elliptic, never rounded, 6–12 mm. long; upper surface of the leaf not incised-reticulate, only the primary nerves incised; below never whitish, never reticulated; young leaves pubescent at the apex; ament sessile, 2–3-flowered.

Similar to *S. Dodgeana* but primary nerves more incised on the upper surface of the leaf.

Schneider, in his key to this group, Journ. Arn. Arb. III, 107. 1921, says the leaves of *S. Dodgeana* are not persistent. My specimens show that they are as persistent as in *S. phlebophylla* or *S. cascadiensis*.

I am naming this hybrid after Dr. W. G. Solheim, Associate Professor of Botany at the University of Wyoming, who gave much assistance to Mr. Kelso when collecting in that state.—E. H. KELSO, Washington, D. C.

Volume 36, no. 424, including pages 101–132 and plates 281–283, was issued 6 April, 1934.